

CLAIMS:

1. Record carrier of a writable type for recording information by writing marks in a track on a recording layer via a beam of radiation entering through an entrance face of the record carrier and constituting a scanning spot having an effective diameter on the track,
 - the recording layer comprising a pregroove indicating the position of the track, the
 - 5 pregroove exhibiting a wobble constituted by periodical displacements of the pregroove in a direction transverse to the longitudinal direction of the track, the wobble exhibiting a wobble modulation for representing control information, and
 - the pregroove comprising a pregroove modulation constituted by pregroove pit areas having a predefined width and depth alternating with pregroove land areas having a reduced depth
 - 10 and/or width, in particular zero depth,
 - a majority of the pregroove land areas being located at zero crossings of the wobble and a majority of the pregroove pit areas being located at peak values of the wobble.
2. Record carrier as claimed in claim 1, wherein the pregroove modulation is
- 15 synchronized to the wobble, in particular wobble periods that are representing said control information comprising less pregroove land areas than wobble period not representing said control information.
3. Record carrier as claimed in claim 1 or 2, wherein the pregroove modulation is
- 20 representing recording control information.
4. Record carrier as claimed in claim 3, wherein the recording control information is encoded by the pregroove land areas and pregroove pit areas according to a predefined channel coding algorithm, which predefined channel coding algorithm differs
- 25 from a main channel coding algorithm for the marks representing said information.
5. Record carrier as claimed in claim 1, wherein the record carrier comprises at least a first recording layer (L0) and a second recording layer (L1), the first recording layer

being present at a position closer to the entrance face than the second recording layer, and each recording layer having the pregroove.

6. Record carrier as claimed in claim 1, wherein the marks have lengths
5 corresponding to an integer number of channel bit lengths T and the shortest marks having a length of a predefined minimum number d of channel bit lengths T for being detectable via the scanning spot having said effective diameter, and the pregroove land areas and pregroove pit areas have lengths of at least two times the predefined minimum number d of channel bit lengths T for being substantially longer than the effective diameter of the scanning spot.

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7. Record carrier as claimed in claim 6, wherein the predefined minimum
number d is 3 channel bit lengths T ($d = 3T$), and the long marks have lengths of at least $6T$,
in particular the lengths being in the range of $8T$ to $14T$.

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8. Record carrier as claimed in claim 1, wherein the pregroove modulation is
different in neighboring tracks for preventing alignment of pregroove land and pit areas in
adjacent pregroove parts, in particular adjacent pregroove parts having quasi random
pregroove modulation or pregroove parts being not modulated neighboring to modulated
pregroove parts.

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9. Device for scanning a track on a record carrier (11) via a beam of radiation
(24), the track comprising marks on a recording layer, the beam entering through an entrance
face of the record carrier and constituting a scanning spot having an effective diameter on the
track, the recording layer comprising a pregroove indicating the position of the track, the
25 pregroove exhibiting a wobble constituted by periodical displacements of the pregroove in a
direction transverse to the longitudinal direction of the track, the wobble exhibiting a wobble
modulation for representing control information, and the pregroove comprising a pregroove
modulation that represents recording control information and is constituted by pregroove pit
areas having a predefined width and depth alternating with pregroove land areas having a
30 reduced depth and/or width, in particular zero depth, a majority of the pregroove land areas
being located at zero crossings of the wobble and a majority of the pregroove pit areas being
located at peak values of the wobble,
the device comprising
- a head (22) for providing the beam,

- wobble detection means for retrieving the control information from the wobble modulation, and
- pregroove demodulation means for retrieving the recording control information from the pregroove modulation.

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10. Device as claimed in claim 9, wherein the pregroove demodulation means comprise synchronization means coupled to the wobble detection means for synchronizing detection of the pregroove land areas and pregroove pit areas to the wobble period.